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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE MAGNAVOX COMPANY, a
Corporation, and SANDERS
ASSOCIATES, INC., a
Corporation,

Plaintiffs,

v.

BALLY MANUFACTURING
CORPORATION, a
Corporation, et al.,

Defendants.

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)
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)
)
) Consolidated
) Civil Actions
) No. 74 C 1030
) No. 74 C 2510
) No. 75 C 3153
) No. 75 C 3933
)
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)

PRETRIAL MEMORANDUM OF PLAINTIFFS
MAGNAVOX AND SANDERS

This is a patent case to be tried at the bench for the direct and contributory infringement of United States Letters Patent 3,659,284, 3,659,285, 3,728,480, Re. 28,507, and Re. 28,598. This memorandum is presented by The Magnavox Company and Sanders Associates, Inc. (hereinafter referred to individually as "Magnavox" and "Sanders", respectively, or collectively as "plaintiffs"), to summarize the facts, largely undisputed, and to set forth the principles of law controlling the legal issues expected to arise in this action.

THE FACTS

I. Introduction

It is unusual that the subject matter of a patent lawsuit can truly be said to be the foundation of a new industry. This is such an instance. The patents in suit* relate to the general field of television games, devices which generate a signal in television format to use television displays for the playing of games by permitting the players to move various symbols around the television screen. Prior to the inventions of the patents in suit, invented during the latter half of the 1960's, there were simply no such games available. The consumer who purchased a television set could use it for only one purpose in his home: to passively watch programming transmitted to his set from a camera or recorder. Today, television games are widely available. The development and the success of those games is directly traceable to the inventions of the patents in suit.

* The patents will sometimes be referred to herein by the last three digits of their numbers. The '507 patent is a reissue of '284, and '598 is a reissue of '285. Henceforth, when one of the reissue patents is referred to, it is to be understood that the reference also includes the corresponding original patent.

II. Available Television Games

Television games are commonly sold in two forms, coin-operated games and home games. A home game is intended for use by a consumer in his home with his commonly available broadcast television receiver and permits the playing of games on the television receiver. Plaintiff Magnavox manufactures and sells such games under the trademark ODYSSEY and has since early 1972. Defendant Atari, Inc.* began manufacturing such home games in late 1975 and defendant Sears purchases and resells the Atari games to the consumer.

A coin-operated game is a free-standing unit intended for use in locations such as arcades, airports, bus stations, bars, and restaurants. The free-standing unit includes both some type of television display apparatus and the necessary electronic circuitry required to play games on the screen of that device. All of the defendants, except Sears, make or sell coin-operated games.

Coin-operated pinball machines have, of course, long been known. They have been widely used since at least the 1930's and are quite commonly found in arcades, bars, etc.; they have changed little over the years. None of them ever included a television type display prior to the inventions of the patents asserted in this action.

* Atari, Inc. is formally a party plaintiff having brought a declaratory judgment action to have two of the patents in suit declared invalid and not infringed. Magnavox and Sanders have counterclaimed for infringement; for simplicity, Atari will be considered as a party defendant.

The prior art considered by the Patent and Trademark Office against various ones of the patents in suit included various kinds of apparatus for generating symbols on the screens of television displays and on the screens of apparatus using other types of cathode ray tube displays which are not of the television type, but none met the need for a television game. The defendants have stated that they intend to offer as prior art games played on large, general purpose computers costing in the hundreds of thousands of dollars and making use of cathode ray tube display apparatus. Some of these computers even sell for millions and the usage charge may be \$600.00 per hour. But prior to the making of the inventions of the patents in suit here, no one had developed apparatus for playing games on television displays. There was no television game available to the consumer. No one had successfully commercially developed apparatus for playing entertainment games on any type of cathode ray tube display.

The development of game playing apparatus for use with television displays, of course, permitted their use with broadcast television receivers. But further, their development permitted the design of games which could be economically constructed making use of various television display apparatus already widely and inexpensively available and which also had a unique type of game action with a great amount of player interaction and player appeal.

III. Use of the Patents in ODYSSEY

Sanders is the owner of the patents in suit and Magnavox is the exclusive licensee thereunder. Magnavox has used the subject matter of those patents in the television games it has manufactured and sold under its trademark ODYSSEY. Magnavox began commercial use of its first ODYSSEY model in approximately April, 1972 when it commenced showing it to the Magnavox dealer organization at shows throughout the country. By mid-May of that year, ODYSSEY had been described in both the consumer and trade press. On May 23-25, 1972, ODYSSEY was shown at a Magnavox dealer show in Burlingame, California.

One of the games included in that first ODYSSEY model was a simulation of ping-pong. In that game there were shown on the screen two paddle symbols, each of which could be moved about the television screen under the direct control of one of the participants, and a moving ball symbol. The ball symbol automatically moved across the screen, but the electronic circuitry was such that when the ball symbol was, for example, moving from left to right and came into coincidence with the right hand paddle symbol, the motion of the ball was altered by reversing its horizontal direction. The ball thus appeared to have been hit by the right player back towards the left player. A player scored a point when the opposing player missed the ball and it went off the screen on the opposing player's

side. A single page brochure on the first ODYSSEY model, plaintiff's exhibit 93, is attached hereto under the tab "ODYSSEY".

IV. The Infringing Games

PONG, a product of Atari, was the first of the infringing games which was manufactured and sold. PONG was developed by Nolan K. Bushnell and a partnership of which he was a member that did business as Syzygy Company in 1972. The design of PONG was done under a contract between Bushnell/Syzygy and Bally Manufacturing Corporation, one of the former defendants in this civil action, and the parent corporation of Midway Mfg. Co. against whom a consent judgment of validity and infringement was entered in this civil action.

Prior to entering into the contract with Bally, Bushnell had been involved in the development of a television game in part as an employee of Nutting Associates Incorporated, a manufacturer of other types of coin-operated games. Bushnell's work in television game design did not commence prior to 1970, well after the developments at Sanders had been made. He designed a television game which Nutting manufactured and sold under the name "COMPUTER SPACE". That game was a marginal success, Nutting having sold only between 1,300 and 1,500 of them.

While Bushnell was employed by Nutting he visited the Magnavox ODYSSEY dealer demonstration at Burlingame,

California in May of 1972. Shortly thereafter he left Nutting, formed a new company, Atari, Inc., and entered into the contract with Bally for the design of a game which ultimately became PONG. The PONG game was remarkably similar to the Magnavox ODYSSEY which Bushnell had previously seen and unlike COMPUTER SPACE which Bushnell had worked on for Nutting. While ODYSSEY was very successful in the home entertainment market, PONG scored similar successes in the coin-operated game industry. Atari and its subsidiary, Kee Games, Inc., brought out similar games derived from PONG including PONG DOUBLES, SUPER PONG, DR. PONG, COCKTAIL PONG, QUADRAPONG, and ELIMINATION. Evidence of the success of PONG was the speed with which other coin-operated game manufacturers came out with ODYSSEY-type games to compete with PONG. These included the game WINNER sold by Midway Mfg. Co.

As ODYSSEY and PONG developed consumer awareness and demand, defendant Chicago Dynamic Industries (CDI) copied the game and sold it as TV PING PONG and similar games as TV TENNIS, OLYMPIC TV HOCKEY and TV GOALIE. Defendant Seeburg and its subsidiary Williams did likewise selling substantially the same ODYSSEY-type game under the names PADDLE BALL, PRO HOCKEY, PRO TENNIS and OLYMPIC TENNIS. In addition to the copies manufactured by the named defendants here, defendants Seeburg and World Wide also

sold games manufactured by others which used the success formula of ODYSSEY and PONG, including PADDLE BATTLE made by Allied Leisure Company of Hialeah, Florida and sold by Seeburg, VOLLY made by Ramtek Corporation of Sunnyvale, California and sold by Seeburg and World Wide, HOCKEY made by Ramtek and sold by Seeburg and World Wide, SOCCER made by Ramtek and sold by World Wide, and others.

After Magnavox enjoyed three years of success in the marketplace with ODYSSEY for the home consumer and after a myriad of PONG copies appeared in the coin-operated market, defendant Atari introduced for the Christmas 1975 market its game CONSUMER PONG to compete directly with Magnavox' ODYSSEY game. One of the major customers of Atari for the Christmas 1975 market was defendant Sears, Roebuck & Company whose advertisement contained in their WISH BOOK for Christmas 1975 is shown in plaintiff's exhibit 11D, a copy of which is attached hereto.

V. The Patents

The patents in suit all relate to the general field of television games and, in particular, to apparatus and methods used for generating symbols on the displays of television game apparatus. Each of the patents resulted from work done at Sanders primarily by Ralph H. Baer, William T. Rusch, and William L. Harrison. That work was commenced in 1966 by Mr. Baer when he first conceived of playing games on television. Soon thereafter apparatus

was built for moving symbols around on a television screen under the direct, manual control of the participants which enabled the playing of at least elementary games.

It was recognized at an early stage that use of television displays conferred significant advantages. Such displays were already widely available and were relatively inexpensive. Television displays, including television broadcast receivers of the type found in the home, generate images on the screen of a cathode ray tube by causing an electron beam to be swept back and forth across the face of the cathode ray tube while simultaneously varying the intensity of the electron beam to cause corresponding variations in the brightness of the light emitted from points on the screen as they are scanned by the electron beam. The sweeping of the electron beam back and forth across the face of the cathode ray tube screen generates what is referred to as a "raster" on the screen. On a broadcast television receiver the raster may be observed as a series of closely spaced, parallel and approximately horizontal lines. The circuitry of a television display for generating the electrical signals required to create the raster is conventionally referred to as the horizontal and vertical deflection circuitry since it is responsible for deflecting the beam of the cathode ray tube in both the horizontal and vertical directions.

The raster is controlled by horizontal and vertical synchronization signals frequently just called "sync signals" and in the patents in suit, these sync signals are used in conjunction with control circuitry including timing circuits and pulse generators to effectively store and process synchronization information for the television display circuits and symbol and symbol movement information for display on the television screen.

A. The '480 Patent

In 1966 Ralph H. Baer conceived of playing games employing television displays and control circuitry to provide simple, direct means for controlling a television display. In early 1967 Ralph Baer had actual control circuits and applied them to television displays and demonstrated to others that such a device for the control of a television display was feasible, that such a control device could be used to generate signals representing dots or spots, that the dots or spots could be manipulated on the screen through the relationship of spot signals to television synchronizing signals and that this could be accomplished either by applying the signals directly to the video portions of a television display or by modulating a radio frequency signal of the type which is transmitted through the air from a television station to a home receiver and applying that RF (radio frequency) signal directly to the

antenna terminals of a broadcast television receiver which has not been modified in any way. Ralph Baer recognized the advantages of utilizing an RF generator and modulating the game and synchronization information on the RF signal in the small control unit so that the control unit could be sold as a box which would look simple to the home broadcast television receiver owner and the owner could merely make simple connections to the antenna terminals on his own home broadcast television receiver and immediately play games thereon.

B. The '507 Patent

During 1967, Mr. Rusch developed apparatus for playing games which included symbols representing, for example, a ball and players on the screen. One particular game was intended to simulate a ping-pong game in a manner similar to that of the ODYSSEY game described above. The Rusch apparatus can in a simplified form be considered as including five essential circuits, the horizontal and vertical deflection circuits, a circuit for generating the right player symbol, a circuit for generating the left player symbol, a circuit for generating the ball symbol and causing that symbol to move about the television screen, and a circuit for detecting when the ball symbol is coincident with either of the player symbols. The circuits for generating each of the symbols are coupled to the horizontal and

vertical deflection circuits so that the symbols appear at the correct locations on the television screen.

The output of the coincidence detecting circuitry is applied to the circuit for generating the ball symbol so that when coincidence between one of the player symbols and the ball symbol is detected, the motion of the ball symbol on the television screen is altered.

The Rusch apparatus forms the general subject matter of the '507 patent. Many apparatus other than the exemplary ping-pong one just mentioned are described in that patent. One other important feature described is circuitry for permitting the ball to appear to bounce off the edges of the television screen. For example, if a ball symbol should be moving towards the top edge of the screen in a game including the bounce feature, when it reaches the top edge rather than merely vanishing it will appear to bounce off the top edge towards the bottom edge. Alternatively, the same bounce feature could be used from an invisible line spaced some distance from any edge of the television screen.

C. The '598 Patent

A joint development of Messrs. Baer, Rusch, and Harrison permitted the playing of video games which included a display on the television screen of symbols which were

fixed during the play of a particular game and a change in the motion of a movable symbol when it became coincident with the fixed symbol. An example of a fixed symbol might be one representing a wall in a handball game where it is desired to have the ball symbol appear to bounce off the wall when it hits it.

The development of Mr. Rusch as discussed above was a substantial one. It provided for a unique and very advantageous form of player interaction in television games. The particular circuit Mr. Rusch used to implement his invention had the advantage that it was both inexpensive and could easily be used to produce symbols of various desired shapes and, in particular, could be used to generate ball symbols which were actually round. However, this ability was achieved at some sacrifice. The symbols produced tended to have indistinct or rather "fuzzy" edges.

In the games of the joint development, movable symbols such as ball symbols with well-defined edges were achieved. Moreover, fixed symbols with edges that were well-defined and very straight or of some other desired shape were desired. The ability to include bounce or other motion change upon coincidence of a movable and a fixed symbol, of course, added significantly to the types of video games that could be played. Crisp, clean edges for the symbols improved the effect.

THE ISSUES TO BE TRIED

In the Complaint in the first of these consolidated actions, Magnavox and Sanders asserted infringement of patents '284 and '285 by Midway, Bally and Empire who have now been dismissed out of the action and also against Chicago Dynamic Industries, Atari, Inc. and Allied Leisure Industries. Atari and Allied were also dismissed out of the original action when they moved to dismiss on the ground of lack of venue. Thus, only Chicago Dynamic Industries remains as a defendant in the original civil action, 74 C 1030. Thereafter, in the fall of 1974, Magnavox and Sanders filed a second Complaint against the Seeburg companies and World Wide Distributors, Inc. asserting the original patents '284 and '285 against these companies which made and sold coin-operated television games.

In July, 1975, Atari, Inc. filed a declaratory judgment action against Magnavox and Sanders in the Northern District of California seeking declaratory relief as to the '284 and '285 patents. That case was transferred to Chicago in the fall of 1975 as 75 C 3933. Between the date when Atari filed its declaratory judgment action in California and that case was finally docketed in the Northern District of Illinois, Sears, Roebuck and Company began

offering for sale Atari's CONSUMER PONG game and Magnavox and Sanders brought civil action No. 75 C 3153 against Sears for infringing the '284 and '285 patents and also for infringing Re. 28,507 and the Baer patent 3,728,480. By appropriate amendments to the pleadings the '284, '285, '507 and '598 patents are now asserted against CDI, the Seeburg defendants and World Wide. These patents plus the '480 patent are asserted against Atari, Inc. and Sears, Roebuck and Company.

The defendants have generally pleaded non-infringement and have pleaded various grounds for invalidity. Other issues including possible misuse and antitrust issues have been separated out for consideration at a later date, if at all. The Court has ordered that the issues of validity be tried first, followed by the issues of infringement in this current proceeding.

THE LAW

As no defendant has served or filed a pretrial order or any statement of proposed agreed facts or any statement of issues of law as of June 7, 1976, the date of this Pretrial Memorandum, it is difficult to apply the law to any well-defined issues that may be raised by defendants at the trial. However, it may be helpful to the Court to have the following statements of legal principles and cited authorities on many of the aspects of the case out of which the defendants may seek to define issues.

I. All Patents "Shall be Presumed Valid"

The patent statute, 35 U.S.C. § 282, explicitly states that a patent "shall be presumed valid", that each claim of a patent "shall be presumed valid" independently of the other claims, and that the burden of establishing a patent or claim as invalid "shall rest on the party asserting it." The burden of proving invalidity is not to be taken lightly; it is a heavy burden and must be shown by at least clear and convincing evidence. Walt Disney Production v. Niles Communication Center, 369 F.2d 230, 234, (7th Cir. 1966), King-Seeley Thermos Co. v. Taste Freez Ind. Inc., 357 F.2d 875, 879 (7th Cir. 1966) cert. den. 385 U.S. 817 (1966). This burden remains upon the alleged infringer throughout the proceeding and is in no sense dependant on the character of the proceedings before the Patent Office or the amount of prior art cited to or considered by the Patent Examiner. The Seventh Circuit has held that this presumption is equally as viable or strengthened when the prior art asserted against validity is no more pertinent than that considered by the Patent Office. LaSalle Street Press, Inc. v. Mc Cormick & Henderson, Inc., 445 F.2d 84, 93 (7th Cir. 1971), Uarco Inc. v. Moore Business Forms, Inc., 440 F.2d 580, 585 (7th Cir. 1971); cert. den. 404 U.S. 873 (1971). See also General Foods Corp. v. Park Foods Co., 419 F.2d 944, 945 (7th Cir. 1969), cert. den. 397 U.S. 1038 (1969):

Every reasonable doubt should be resolved against the defendant who is attempting to show invalidity. Mumm v. Decker & Sons, 301 U.S. 168, 171 (1937). Bela Seating Co. Inc. v. Polaron Products, Inc., 297 F.Supp. 489, 507 (N.D. Ill. 1968), affirmed 438 F.2d 733 (1971), cert. den. 403 U.S. 922 (1971).

In addition to the statutory presumption of validity, one must add the force of the recognition of finality that is accorded to administrative determinations by agencies commanding a unique expertness beyond that expected from the courts. Chicago Rawhide Mfg. Co. v. Crane Packing Co., 523 F.2d 452 (7th Cir. 1975), cert den. ____ U.S. ____ (1976), Hazeltine Research v. Anco Mfg. Co., 227 F.2d 137, 146 (7th Cir. 1955) cert den. 350 U.S. 987 (1956). Finally, this presumption of validity applies to reissue patents as well as original patents. England v. Deere & Co., 284 F.2d 460, 463 (7th Cir. 1960), cert. den. 365 U.S. 870 (1961), Hazeltine Research v. Anco Mfg. Corp., supra, 227 F.2d at 146.

Not one of the over 150 items of prior art cited by the defendants is sufficient to vitiate or even weaken the presumption of validity.

II. Anticipation of an Invention Under 35 U.S.C. 102
Must be Proven Based On Analogous Art Shown to be
Direct Anticipation, Element for Element

Physical identity is the test of novelty and anticipation and this determination is made in light of the prior art. Prior art is that fund of information available to the

public. In order for any prior art to be even material with respect to the issue of validity, it must be in an analogous art, as contrasted to a non-analogous art. The more remote the reference from the subject matter at hand, the less persuasive it becomes even on the question of obviousness under 35 U.S.C. 103. Ling-Temco-Vought Inc. v. Kollsman Instrument Corp., ___ F.Supp. ___, 152 U.S.P.Q. 446, 450 (2d Cir. 1967); Ekstrom-Carlson & Co. v. Onsrud Machine Works, Inc., 298 F.2d 765, 768 (7th Cir. 1962), cert. den. 369 U.S. 586 (1963); Burgess Cellulose Co. v. Wood Flong Corp., 431 F.2d 505, 509 (2d Cir. 1970), Skega Aktiebolag v. B. F. Goodrich Co., 420 F.2d 1358, 1359 (6th Cir. 1970), cert. den. 400 U.S. 825 (1971); Mott Corp. v. Sunflower Industries, Inc., 314 F.2d 872, 878 (10th Cir. 1963).

Even if the prior art is found to be analogous, it cannot anticipate unless it contains a single, substantially identical disclosure revealing all of the elements of the patent operating in the same fashion to perform an identical function. Popeil Brothers, Inc. v. Schick Electric, Inc., 494 F.2d 162, 164 (7th Cir. 1974); Illinois Tool Works, Inc. v. Sweetheart Plastics, Inc., 436 F.2d 1180, 1182 (7th Cir. 1971), cert. den. 403 U.S. 942 (1972); Amphenol Corp. v. General Time Corp., 397 F.2d 431, 438 (7th Cir. 1968); Ropat Corp. v. West Bend Co., 382 F.Supp. 1030, 1036 (N.D. Ill. 1974).

"It is not sufficient to constitute an anticipation that a device of the prior art might, by modification, be made to accomplish the function performed by the patent in question if it were not designed, nor adapted, nor actually used, for the performance of such functions." Elgen Manufacturing Corp. v. Ventfabrics Inc., F.Supp., 134 U.S.P.Q. 5, 14 (N.D. Ill. 1962).

A. Public Use and On Sale Anticipations Require Public Activity with an Operative Embodiment

Sections 102(a) and (b) of the Patent Act, 35 U.S.C., prohibit the granting of a patent on the basis of anticipation where the invention was known or used in this country by others before the invention thereof by the applicant, or where the invention was in public use or on sale in this country more than one year prior to filing a patent application.

The knowledge or use must be public knowledge or public use and must be of a character enabling one of ordinary skill to make or use the invention; an embryonic idea, incomplete development, or deficient disclosure does not qualify. Coffin v. Ogden, 85 U.S. 120 (1873); Minneapolis-Honeywell Regulator Co. v. Midwestern Instruments, Inc., 298 F.2d 36, 38 (7th Cir. 1961); King-Seeley Thermos Co. v. Reynolds Products, Inc., F.Supp., 167 U.S.P.Q. 519, 526 (N.D. Ill. 1970). Secret use of an invention prevents it from becoming an anticipation within § 102(a), (b). Cloud

v. Standard Packaging Corporation, 376 F.2d 384, 389-90 (7th Cir. 1967); Carboline Co. v. Mobil Oil Corp., _____ F.Supp. _____, 163 U.S.P.Q. 273, 279 (N.D. Ill. 1969); Gillman v. Stern, 114 F.2d 28, 31 (2d Cir. 1940), cert. den. 311 U.S. 718 (1941).

The "on sale" anticipation requires activities to sell the patented item in a completed form after the invention is reduced to practice. Tractor Supply Co. v. International Harvester. _____ F. Supp. _____, 155 U.S.P.Q. 420, 430 (N.D. Ill. 1967).

The burden of proof to establish public use and/or on sale rests on the party making that contention. Tractor Supply Co. v. International Harvester, supra, 155 U.S.P.Q. at 429; Devex Corporation v. General Motors Corp., 321 F.2d 234, 239 (7th Cir. 1963), cert. den. 375 U.S. 971 (1964). The prior public use or on sale must be established by at least clear and convincing proof, particularly where oral testimony is relied on. Dunlop Holdings Ltd. v. Ram Golf Corp., _____ F.Supp. _____, 188 U.S.P.Q. 383, 384 (N.D. Ill. 1974); Matherson Selig Co. v. Carl Gorr Color Card, Inc., 301 F.Supp. 336, 344 (N.D. Ill. 1967); U.S. Gypsum Company v. National Gypsum et al., _____ F.2d _____, 169 U.S.P.Q. 135, 139 (7th Cir. 1971); Ransburg Electro-Coating Corp. v. Nordson Corp., _____ F.Supp. _____, 158 U.S.P.Q. 385, 413 (N.D. Ill. 1968).

B. Prior Art in Unpublished Form Must
Be Proven Beyond a Reasonable Doubt

The Supreme Court early on warned of the dangers of oral testimony and stated that prior art in patent cases not established by patent documents or publications must be proven by evidence which is "clear, satisfactory and beyond a reasonable doubt." The Barbed Wire Patent, 143 U.S. 275, 284 (1892). Because of the extreme aptness of the Supreme Court's language in that case, it is extensively quoted as follows:

"We have now to deal with certain unpatented devices, claimed to be complete anticipations of this patent, the existence and use of which are proven only by oral testimony. In view of the unsatisfactory character of such testimony, arising from the forgetfulness of witnesses, their liability to mistakes, their proneness to recollect things as the party calling them would have them recollect them, aside from the temptation to actual perjury, courts have not only imposed upon defendants the burden of proving such devices, but have required that the proof shall be clear, satisfactory and beyond a reasonable doubt. Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information. The very fact, which courts as well as the public have not failed to recognize, that almost every important patent, from the cotton gin of Whitney to the one under consideration, has been attacked by the testimony of witnesses who imagined they had made similar discoveries long before the

patentee had claimed to have invented his device, has tended to throw a certain amount of discredit upon all that class of evidence, and to demand that it be subjected to the closest scrutiny. Indeed, the frequency with which testimony is tortured, or fabricated outright, to build up the defence of a prior use of the thing patented, goes far to justify the popular impression that the inventor may be treated as the lawful prey of the infringer. The doctrine was laid down by this court in Coffin v. Ogden, 18 Wall. 120, 124, that 'the burden of proof rests upon him,' the defendant, 'and every reasonable doubt should be resolved against him.'" 143 U.S., 284-285.

The Supreme Court's admonition as to the general unreliability of oral testimony in establishing prior art must apply doubly when the witnesses are paid by a party for "consulting services" and for their testimony as has been common in this action.

III. Non-Obviousness

Section 103 of the Patent Act, 35 U.S.C., sets out a further requisite of patentability; the invention must not have been "obvious at the time [it] was made to a person having ordinary skill in the art". In Graham v. John Deere Co., 383 U.S. 1 (1965), the Supreme Court set out the considerations that must be made in applying § 103, stating at pages 17-18:

"While the ultimate question of patent validity is one of law [citation], the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences

between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or non-obviousness, these issues may have relevancy.

"That is not to say, however, that there will not be difficulties in applying the non-obviousness test. * * * The difficulties, however, are comparable to those encountered daily by the courts in such frames of reference as negligence and scienter . . ."

See also Armour & Co. v. Wilson & Co., 274 F.2d 143, 156 (7th Cir. 1960).

The patent discloses the particular prior art area to be considered, the level of ordinary skill therein being determined by referring to the subjective reaction of a person thoroughly familiar with the particular art who practiced the art at the crucial time in question. Malsbury Manufacturing Company et al. v. Ald, Incorporated, 310 F.Supp. 1112, 1118 (N.D. Ill. 1970), affirmed 447 F.2d 809, 810 (7th Cir. 1971), Schuessler Knitting Foundation v. American Needle Co., ____ F.Supp. ____, 160 U.S.P.Q. 694, 696 (N.D. Ill. 1968), Illinois Tool Works Inc. v. Sweetheart Plastics, Inc., ____ F.2d ____, 168 U.S.P.Q. 451, 456 (7th Cir. 1971), Ortho Pharmaceutical Corporation v. American Hospital Supply Corp., ____ F.Supp. ____, 186 U.S.P.Q. 501, 507

(S.D. Ind. 1975), W. R. Grace & Co. v. Parle Mfg. Co., 378 F.Supp. 976, 984-85, 181 U.S.P.Q. 490, 497 (E.D. Ill. 1974).

In this case, there was no television game art but one might look to the television artisan or the closest game art, pin ball machines.

A flash of creative genius is not a requisite to patentability; the only requisite is that an invention be not obvious to one of ordinary skill in that art at the time of invention. Graham v. John Deere Co., supra, 383 U.S. at page 15. Nor is the combining of individual elements known to the art into a new combination per se unpatentable unless it was obvious at the time. Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147, 152 (1950), Anderson's-Black Rock, Inc. v. Pavement Salvage Co., 396 U.S. 57, 61 (1969), Sakraida v. Ag Pro, ___ U.S. ___, 189 U.S.P.Q. 449 (1976). That the invention appears simple does not negate a finding of non-obviousness. Expanded Metal Co. v. Bradford, 214 U.S. 366, 381 (1908), England v. Deere, 182 F.Supp. 133, 139 (S.D. Ill. 1960), affirmed 284 F.2d 460 (7th Cir. 1961), cert. den. 365 U.S. 870 (1961), Schumaker v. Gem Manufacturing, 311 F.2d 273, 276 (7th Cir. 1962).

Obviousness must be judged as of the time the invention was made, care being taken to avoid reading into the prior art the teachings of the patentee's invention. Marconi Wireless Co. v. United States, 320 U.S. 1, 60-61 (1943) (dissenting opinion,

Frankfurter); Graham v. Deere, supra, 383 U.S. at p. 36; National Slug Rejectors, Inc. v. A.B.T. Mfg. Corp., 164 F.2d 333, 336 (7th Cir. 1947), cert. den. 333 U.S. 832 (1948); Illinois Tool Works, Inc. v. Foster Grant Inc., 395 F.Supp. 234, 257, 181 U.S.P.Q. 553, 570 (N.D. Ill. 1974). In this case, the defendants, with a miasma of "prior art", will no doubt attempt to apply 20-20 hindsight in putting it all together -- but it will be in the light of the plaintiff's inventions that they will do it.

"Although many things seem obvious after they have been done, one cannot properly apply hindsight to attempt to determine what was obvious at the time the invention was made." Bela Seating Company v. Polaron Products Inc., 297 F.Supp. 489, 508 (N.D. Ill. 1968), affirmed 438 F.2d 733 (7th Cir. 1971), cert. den. 403 U.S. 922 (1971).

While commercial success may be denominated a secondary consideration with respect to non-obviousness, it sheds "light to the circumstances surrounding the origin of the subject matter" and supports a finding of non-obviousness when other factors point to the same conclusion. Graham v. Deere, supra, 383 U.S. at 17, Holley v. Outboard Marine Corporation, 241 F.Supp. 657, 666 (N.D. Ill. 1964), affirmed 345 F.2d 351 (7th Cir. 1965), cert. den. 383 U.S. 934 (1966); Continental Can Co. v. Anchor Hocking Glass Corp., ___ F.2d ___, 150 U.S.P.Q. 1, 2 (7th Cir. 1966); Columbia Broadcasting System v. Zenith Radio Corp., 391 F.Supp. 780, 788-9, 185 U.S.P.Q. 662,

668-9 (N.D. Ill. 1975); Technicon Instruments Corporation v. Coleman Instruments Inc., _____ F.Supp. _____, 150 U.S.P.Q. 227, 236 (N.D. Ill. 1966). The willingness of competitors to take a license or their efforts to design around or otherwise circumvent the patent claims is evidence of a tacit recognition by them of the patent's validity and, hence, circumstantial evidence of the non-obviousness of the innovation. Wahl Clipper Corp. v. Andis Clipper Co., 66 F.2d 162, 165 (7th Cir. 1933); Ric-Will Co. v. E. B. Kaiser Co., 179 F.2d 401, 404 (7th Cir. 1950), cert. den. 339 U.S. 958 (1950); Schumaker v. Gem Manufacturing, 311 F.2d 273, 276 (7th Cir. 1962); Holley v. Outboard Marine Corporation, supra; St. Regis Paper Co. v. Bemis Co., 403 F.Supp. 776, 783 (S.D. Ill. 1975); Ortho Pharmaceutical Corp. v. American Hospital Supply Corp., _____ F.Supp. _____, 186 U.S.P.Q. 501, 507 (S.D. Ind. 1975); Malsbury Mfg. v. Ald Inc., supra; King-Seeley Thermos Co. v. Reynolds Products, _____ F.Supp. _____, 167 U.S.P.Q. 519, 525 (N.D. Ill. 1970); Welsh Co. v. Chernivsky, _____ F.2d _____, 144 U.S.P.Q. 288, 292 (7th Cir. 1965); Adler Enterprises, Inc. v. Carson, Pirie, Scott & Co., _____ F.Supp. _____, 137 U.S.P.Q. 520, 524 (N.D. Ill. 1963).

A. Inchoate Ideas or Desired Results
Apart From the Means for Achieving
Them Will Not Invalidate a Patent

A patent may not be obtained for an abstract principle, idea, wish, result, or other mere abstraction, even though it is novel and useful. Gottschalk, Comr. Pats. v. Benson, 409 U.S. 63, 71 (1972), Flowers v. Austin-Western Co., 149 F.2d 955, 960 (7th Cir. 1945), Wright Aeronautical Corp. v. General Motors Corp., 166 F.2d 636, 640 (7th Cir. 1948).

Likewise, merely expressing the desire to achieve some particular goal or result will not anticipate a patent to the one who first succeeds in producing that result. An anticipation within the purview of Section 102 requires an actual reduction of a conceived idea to practice; an actual anticipation complete with respect to every element. The Supreme Court addressed this point directly in Coffin v. Ogden, 85 U.S. 120 (1874) at page 124:

"The invention or discovery relied upon as a defence, must have been complete, and capable of producing the result sought to be accomplished; and this must be shown by the defendant. The burden of proof rests upon him, and every reasonable doubt should be resolved against him. If the thing were embryotic or inchoate; if it rested in speculation or experiment; if the process pursued for its development had failed to reach the point of consummation, it cannot avail to defeat a patent founded upon a discovery or invention which was completed, while in the other case there was only progress, however near that progress may have approximated to the end in view. The law requires not conjecture, but certainty."

The fact that others had an inept or similar idea at or before the patentee's invention does not prove that the patentee's success in fulfilling the idea was obvious to one skilled in the art. Jones v. Hyman Metal Lath Co., 254 Fed. 91 (6th Cir. 1918); National Co. v. Fletcher, 71 Fed. 876 (3d Cir. 1896); Skelly Oil v. Universal Oil Prod. Co., 31 F.2d 427 (3d Cir. 1929).

B. Defendant's Plethora of Prior Art is Evidence of Validity

A defendant's citation of a large number of prior art patents is indicative of invention, the futility of prior attempts to solve the problem, and the highly uncertain and confused state of the art. The citation of 8 patents has been held to be evidence of such a weakness. Bela Seating Co. v. Poloron Products Inc., 297 F.Supp. 489, 508 (N.D. Ill. 1968) affirmed 438 F.2d 733 (1971), cert. den. 403 U.S. 922 (1971), Minneapolis Honeywell Co. v. Midwestern Instruments, Inc., 298 F.2d 36, 38 (7th Cir. 1961), Ric-Wil Co. v. E. B. Kaiser Co., 179 F.2d 401, 404 (7th Cir. 1950), cert. den. 339 U.S. 958 (1950), Canaan Products, Inc. v. Edward Don & Co., 273 F.Supp. 492, 498 (N.D. Ill. 1966). Here Atari's notice under 35 U.S.C. § 282 of the prior art it intends to rely on includes 117 U.S. patents, 8 foreign patents, 20 nonpatent publications, 9 alleged instances of prior public knowledge or use or prior invention, and 1 offer for sale, for a total of 155 alleged prior art references.

IV. The Patent Specification

35 U.S.C. §112 requires that the specification shall contain a written description "to enable any person skilled in the art ... to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention." If the inventor has disclosed the "best mode" such that one skilled in the art could practice the invention, it is irrelevant that neither the best possible embodiment, nor every detail or theoretical system is described. CTS Corp. v. Piher International Corp., 527 F.2d 95, 105 (7th Cir. 1975), cert. den. ___ U.S. ___, 189 U.S.P.Q. 384 (1976); Illinois Tool Works, Inc. v. Solo Cup Co., ___ F.Supp. ___, 179 U.S.P.Q. 322, 368-9 (N.D. Ill. 1973). Moreover, a "patentee may be his own lexicographer and his definition controls." Aerosol Research Co. v. Scovill Mfg. Co., ___ F.Supp. ___, 137 U.S.P.Q. 701, 715 (N.D. Ill. 1963); Ellipse Corp. v. Ford Motor Co., 452 F.2d 163, 167 (7th Cir. 1971), cert. den. 406 U.S. 948 (1972); Canaan Products Inc. v. Edward Don & Co., 388 F.2d 540, 544 (7th Cir. 1968).

The courts have also held that validity is not impaired if the specification does not disclose every conceivable form, or the final commercialized form, or that portion or detail which is well known to those skilled in the art. Illinois Tool Works, Inc. v. Solo Cup Co., supra, 179 U.S.P.Q. at pp. 366,

340, Minnesota Mining and Mfg. Co. v. Johnson and Johnson,
____ F.Supp. _____, 179 U.S.P.Q. 216, 220 (N.D. Ill. 1973).

The Seventh Circuit dealt with the sufficiency
of the disclosure in Armstrong v. Motorola, Inc., 374
F.2d 764, 771 (7th Cir. 1967), stating:

"It is immaterial that patent '066
did not disclose the particular receiver ...
that later achieved commercial success, for the
validity of the patent is not impaired by the
fact that experimentation or the exercise of
judgment is necessary to obtain the particular
results desired." (Emphasis supplied)

Once the best mode contemplated by the inventor is pre-
sented the inventor is entitled to claim every form in which the
invention may be used and to obtain all benefits therefrom regardless
of whether those forms are mentioned in the patent or whether the
inventor was aware of them. Dart Industries, Inc. v. E. I. duPont &
Co., 348 F.Supp. 1338, 1356 (N.D. Ill. 1972), King-Seeley Thermos
Co. v. Tastee Freez Industries, Inc., 357 F.2d 875, 880
(7th Cir. 1966), Illinois Tool Works, Inc. v. Continental
Can Co., supra, 273 F.Supp. at p. 103.

The passing on the specification by the Patent
Office and allowance of the application is indicative of
its sufficiency, Illinois Tool Works, Inc. v. Continental Can
Co., 273 F.Supp. 94, 118 (N.D. Ill. 1972), affirmed 397 F.2d 517
(7th Cir. 1968).

V. Reissue Patents

Under 35 U.S.C. § 251, a patentee may, upon a new examination, obtain a reissue patent to broaden or narrow the claims to his invention and to correct any errors in the original patent. That section allows correction to broaden the claims to insure that the inventor has received protection commensurate with his disclosure. St. Regis Paper Co. v. Bemis Co. Inc., ____ F.Supp. ____, 188 U.S.P.Q. 107, 116 (S.D. Ill. 1975); In re Wesseler, ____ F.2d ____, 151 U.S.P.Q. 339, 346 (C.C.P.A. 1966); Hartzell Industries Inc. v. Mc Cauley Industrial Corp., ____ F.2d ____, 134 U.S.P.Q. 275, 277 (6th Cir. 1962); Weller Manufacturing Corp. v. Wen Products Incorporated, ____ F.2d ____, 109 U.S.P.Q. 73, 76 (7th Cir. 1956); Hazeltine Research Co. v. Arco Manufacturing, ____ F.2d ____, 107 U.S.P.Q. 187, 192 (7th Cir. 1955).

The fact that all of the original claims are retained in a reissue patent is no basis for alleging the reissue patent invalid. England v. Deere & Company, ____ F.Supp. ____, 125 U.S.P.Q. 103, 108 (S.D. Ill. 1960), affirmed 284 F.2d 460 (7th Cir. 1960), cert. den. 365 U.S. 870 (1961). The patentee is entitled to multiple claims of varying scope in his patent to assure protection against those who would seek to avoid one claim on a technicality, 35 U.S.C. 112, 37 CFR 1.75, 1.119.

Section 252, 35 U.S.C., was enacted to deal with the possibility of intervening rights of third parties who may have relied upon the scope of the original patent before the reissue was granted. However, if the defendants infringe a valid claim of the original patent, which was retained in the reissue, no intervening rights can arise. Weller Mfg. Co. v. Wen Products Inc., 231 F.2d 795, 799 (7th Cir. 1956), Akron Brass Co. v. Elkhart Brass Mfg. Co., Inc., 353 F.2d 704 (7th Cir. 1965), National Rejectors v. ABT Mfg. Corp., 184 F.2d 612, 614 (7th Cir. 1950), cert. den. 340 U.S. 912 (1951).

A. Reissue Is a Regular Procedure
of the Patent Office

The patent statute authorizes the reissuance of a patent for the remaining term of the original patent whenever the patent is deemed wholly or partly inoperative "by reason of the patentee claiming more or less than he had a right to claim in the patent", 35 U.S.C. 251. For the reasons set forth in the declarations in the '507 and '598 reissues the patentees deemed a reissue appropriate to add certain additional claims.

The Patent Office approved of those declarations and the contents thereof and approved and granted the reissue patents '507 and '598.

A Patent Office determination of the sufficiency of the oath accompanying an application for a reissue

patent and forming the basis for granting the reissue is entitled to great weight. The form and sufficiency of a patent oath, as investigated and passed upon by the Patent Office, should not be disturbed by the courts or the defendants since the Patent Office is constantly examining and ruling on such matters. The expertise of the Patent Office examiners is given great weight and should not be overruled by courts except when clearly erroneous. Helms Products, Inc. v. Lake Shore Mfg. Co., Inc., 227 F.2d 677, 679 (7th Cir. 1955), Aerosol Research Co. v. Scovil Mfg. Co., 334 F.2d 751, 756 (7th Cir. 1964), Technicon Instruments Corp. v. Coleman Instruments Corp., 385 F.2d 391, 393 (7th Cir. 1964), King Seeley Thermos Co. v. Reynolds Products, Inc., 322 F.Supp. 713, 721 (N.D. Ill. 1970).

The Manual of Patent and Examining Procedure, an instructive publication of the Patent and Trademark Office for Examiners, § 1401.08, states:

"The question of the sufficiency of the reissue oath or declaration ... must in each case be reviewed and decided personally by the primary examiner."

A primary examiner is an examiner in a supervisory position.

Further, a statement in the reissue oath by the patentee that the original patent was "inoperative to protect his invention fully and properly" is not an admission that the patent was inoperative per se. Tee-Pak v. St. Regis, 491 F.2d 1193, 1201 (6th Cir. 1974).

VI. A Defense of Fraudulent
Patent Procurement

A finding that a patent was procured by fraud or unclean hands must be based on clear and convincing evidence. United States v. American Bell Telephone Co., 167 U.S. 224, 251 (1897), Tractor Supply Co. v. International Harvester Co., _____ F.Supp. _____, 155 U.S.P.Q. 420, 433-34 (N.D. Ill. 1967).

A misrepresentation to the Patent Office does not render a patent invalid or unenforceable unless the misrepresentation is a false statement of fact, is known to be false, and is material, e.g., the patent would not have issued without it. Ortho Pharmaceutical Corp. et al. v. American Hospital Supply Corp., _____ F.Supp. _____, 186 U.S.P.Q. 501, 509 (S.D. Ind. 1975).

The failure of a patentee to cite prior art does not constitute fraud or inequitable conduct with respect to the Patent Office where the patentee in good faith believed such art irrelevant. Fully aware of the high degree of candor and good faith required of an applicant

before the Patent Office, the courts have continually held that the applicant is nevertheless entitled to exercise a good faith judgment as to what matters require disclosure. In Mobil Oil Corp. v. Filtrol Corp., 186 U.S.P.Q. 252, 260 (C.D. Cal. 1975), finding the defendant's evidence far short of the requirement of clear and convincing proof, the Court stated:

"The hindsight reconstruction of the facts, even where error is shown, is not in itself sufficient to establish the degree of fraud, or willfulness, or even of recklessness, which will deprive a patentee of the fruits of his otherwise valid claim."

A deliberate intentional misrepresentation by failing to cite knowingly relevant art must be shown. Feed Service Corporation v. Kent Feeds, Inc. et al., 528 F.2d 756, 762-3, 188 U.S.P.Q. 616, 621 (7th Cir. 1976); Ransburg Electro-Coating Corp. v. Nordson Corp., ____ F.Supp. ____, 158 U.S.P.Q. 385, 413-14 (N.D. Ill. 1968); St. Regis Paper Company v. Bemis Company, Inc., 403 F.Supp. 776, 785 (S.D. Ill. 1975). An allegation of fraud based on a contention that the patentee failed to call pertinent prior art to the attention of the Patent Office will fail where the office had before it similar or better art. General Foods Corp. v. Perk Foods Co., ____ F.Supp. ____, 157 U.S.P.Q. 14, 34 (N.D. Ill. 1968). The same standard pertains where misrepresentations and

concealment of pertinent prior art are alleged with respect to reissued patents. St. Regis Paper Company v. Bemis Company, Inc., supra, 403 F.Supp. at 789-90.

Finally, one should note the growing judicial backlash to the almost boilerplate allegations and knee-jerk reactions of patent lawyers to include a fraud defense. In Becton Dickinson & Co. v. Sherwood Medical Industries, 516 F.2d 514, 524 187 U.S.P.Q. 200, 208 (5th Cir. 1975) the Fifth Circuit recognized the necessity of relying upon counsel's good judgment and clarified its prior Beckman decision stating:

"Fair dealing, which is back of Beckman, is not a mechanical mandate that every patent ultimately cited by the Examiner in issuing the patent or, more so, by the unlimited industry of counsel in a years-later infringement suit in which every writing, periodical, or patent, foreign or domestic, is dredged up as prior art, must be cited in the application. It is again a matter of judgment in the light of accepted practices by and with the Patent Office in using good, not bad, faith in citing art thought to be of sufficient relevance."

VII. Patent Infringement

35 U.S.C. §271 defines patent infringement, and the cases have held that the patent owner has the burden of proving infringement, but only by a preponderance of the evidence. Moore v. Schultz, 491 F.2d 294, 298 (10th Cir. 1974), cert. den. 419 U.S. 930 (1974).

A. Direct Infringement

Subsection (a), § 271, makes unlawful direct infringement by whoever makes, uses, or sells any patented invention during

the term of the patent. It is a basic tenet of the patent law that the claims of the patent define the boundaries of the patent grant. The question of infringement is resolved by comparing the accused device with the claims of the patent; not with the structure described in the patent or the patentee's commercial device. CTS Corporation v. Piher International Corp., 527 F.2d 95, 100 (7th Cir. 1975), cert den. ___ U.S. ___, 189 U.S.P.Q. 384 (1976); Schramm Inc. v. Hinde, 385 F.Supp. 1037, 1042 (N.D. Ill. 1974), affirmed 515 F.2d 511 (7th Cir. 1975). The proofs will show that the claims of the patents in suit here literally read on the television games made or sold by each of the defendants. That should be the end of it, but if defendants should contend otherwise the remainder of 35 U.S.C. 271 removes all doubt or issue as to infringement.

Infringement is not avoided by the addition of other structure or embellishments to the invention, nor does a mere improvement on an invention avoid infringement. The addition of new elements to improve a product does not avoid infringement by the accused product, if that product still includes all the elements of a patent claim. Ortho Pharamaceutical Corp. v. American Hospital Supply Corp., ___ F.Supp. ___, 186 U.S.P.Q. 501, 510 (S.D. Ind. 1975); Columbia Broadcasting System, Inc. v. Zenith Radio Corp., 391 F.Supp. 780, 798, 185 U.S.P.Q. 662, 672 (N.D. Ill. 1975); Illinois Tool Works, Inc. v. Foster Grant Co., Inc., 395 F.Supp. 234, 253, 181 U.S.P.Q.

553, 566 (N.D. Ill. 1974); Harris-Hub Co., Inc. v. Gar Siegler, Inc.,
____ F.Supp.____, 179 U.S.P.Q. 469, 475 (N.D. Ill. 1973);
King-Seeley Thermos Co. v. Reynolds Products, Inc., ____ F.Supp.
____, 167 U.S.P.Q. 519, 526 (N.D. Ill. 1970); Illinois Tool
Works v. Sweetheart Plastics, ____ F.Supp. ____ , 163 U.S.P.Q. 188,
192 (N.D. Ill. 1969); Paper Converting Machine Co., Inc. v.
FMC Corporation, ____ F.2d____, 161 U.S.P.Q. 67, 75 (7th Cir. 1969);
Schuessler Knitting Foundation v. American Needle Co., ____ F.Supp.
____, 160 U.S.P.Q. 694, 698 (N.D. Ill. 1968); La Salle Street
Press, Inc. v. Mc Cormick & Henderson, Inc., ____ F.Supp.____,
158 U.S.P.Q. 627, 632 (N.D. Ill. 1968); Stuart W. Johnson & Co., Inc.
v. Ro-Ber, Inc., ____ F.Supp.____, 156 U.S.P.Q. 177, 183 (N.D.
Ill. 1967).

B. Inducement of Infringement

Subsection (b) of 35 U.S.C. 271 recites:

"(b) Whoever actively induces infringement
of a patent shall be liable as an infringer."

Thus, it would avail defendants ATARI or SEARS
nothing if they should allege that they are not a direct
infringer of the '480, '507 and '598 patents when they
sell their PONG game control box to the owner of a
broadcast television receiver for the sole purpose of
playing games on his television set in his home.

C. Contributory Infringement

Subsection (c), 35 U.S.C. § 271, makes unlawful contributory
infringement by whoever 1) sells 2) a material component of a pat-

ented invention 3) with knowledge that such component has been especially made for use in an infringement of such invention and, 4) such component is not a staple article of commerce suitable for substantial noninfringing use. Aro Mfg. Co. v. Convertible Top Co., 356 U.S. 336, (1964); Armstrong v. Motorola, Inc., 374 F.2d 764 (7th Cir. 1967), cert. den. 389 U.S. 836 (1968). It is a further requirement that there be actual infringement of the patent, but it is not necessary that either the infringer or contributory infringer know of the existence of the patent, Aro Mfg. Co. v. Convertible Top Co., supra, 356 U.S. at 341; Nordberg Mfg. Co. v. Jackson Vibrators, Inc., ____ F.Supp. ____, 153 U.S.P.Q. 777, 785 (N.D. Ill. 1967). Defendants' infringing games have been especially made for use in an infringing manner, and have no use other than to infringe the patents in suit; therefore, defendants' games certainly are not staple articles of commerce. Further, a mere theoretical capability of non-infringing use is insufficient to avoid liability; the suitability for non-infringing use must be actual and substantial. Fromberg, Inc. v. Thornhill, 315 F.2d 407, (5th Cir. 1963). This contributory infringement under Section 271 (c) may constitute still another basis for liability under Section 271 (b) for inducing infringement. Nordberg Mfg. Co. v. Jackson Vibrators, Inc., supra, 153 U.S.P.Q. at 785.

D. The Doctrine of Equivalents and the Status
of A Pioneer Patent Both Require A
Broad Interpretation of the Claims

Although the claims of a patent are the measure of the protected invention, the judicially created doctrine of equivalents adds some latitude to the application of claim language. Where an unauthorized invention employs substantially the same means to achieve substantially the same results in substantially the same way as the claimed invention, the unauthorized device may be deemed an infringement even though not a single claim of the patent can literally be read on the unauthorized device. Sanitary Refrigerator Co. v. Winters, 280 U.S. 30, 42 (1929); Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605, 607, (1950); Smith v. Snow, 294 U.S. 1, 20 (1935); Shumaker v. Groboski Industries, Inc., 352 F.2d 837, 841 (7th Cir. 1965); Reese v. Elkhart Welding and Boiler Works Inc., 447 F.2d 517, 527 (7th Cir. 1971). The Supreme Court has repeatedly held that a charge of infringement is sometimes made out, though the letter of the claims be avoided. Machine Co. v. Murphy, 97 U.S. 120 (1877); Ives v. Hamilton, 92 U.S. 426, 431 (1875); Morey v. Lockwood, 75 U.S. 230 (1868); Elizabeth v. Pavement Company, 97 U.S.

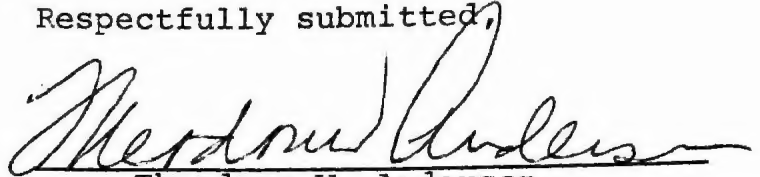
126, 137 (1877); Sessions v. Romadka, 145 U.S. 29; Hoyt v. Horne, 145 U.S. 302 (1892). Further, when a patented invention has had "significant commercial success or the patent is of the pioneer type" the patent claims are to be construed liberally and are not to be limited to the identical means and mode of operation shown in the patent. King-Seeley Thermos Co. v. Reynolds Products Inc., 322 F.Supp. 713, 720 (N.D. Ill. 1970); Miller v. Manufacturing Co., 151 U.S. 164, 207 (1894); Chicago Patent Corp. v. Genco, Inc., 124 F.2d 725, 728 (7th Cir. 1941). The inventions of the patents here are the foundation of an industry and are entitled to the status of "pioneer patents."

CONCLUSION

The facts show that the inventions of the patents in suit were of importance and significance; that significance should be recognized. Prior to the time the inventions were made, there was simply no such thing as either a television game or a game using a television display. The patents were pioneer developments in this field. The alleged prior art was in other fields, was

abortive, or just plain missed the invention. The '480, '507
and '598 patents should be found valid and infringed.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Theodore W. Anderson', written over a horizontal line.

Theodore W. Anderson
Attorney for The Magnavox Company
and Sanders Associates, Inc.

James T. Williams
Neuman, Williams, Anderson & Olson
77 West Washington Street
Chicago, Illinois 60602
(312) 346-1200

CERTIFICATE OF SERVICE

It is hereby certified that the foregoing PRETRIAL
MEMORANDUM OF PLAINTIFFS MAGNAVOX AND SANDERS was served
by hand delivering copies thereof to:

Melvin M. Goldenberg, Esq.
McDougall, Hersh & Scott
135 South La Salle Street
Chicago, Illinois

Edward C. Threedy, Esq.
Threedy & Threedy
111 West Washington Street
Chicago, Illinois

Thomas E. Smith, Esq.
Lee & Smith
10 South Riverside Plaza
Chicago, Illinois

Thomas O. Herbert, Esq.
Union League Club
65 West Jackson Boulevard
Chicago, Illinois

this 7th day of June, 1976.

Theodore W. Anderson

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like *Analogic*.¹ Geography games, like *States*. And pure fun games, like *Simon*

Says and *Haunted House*.

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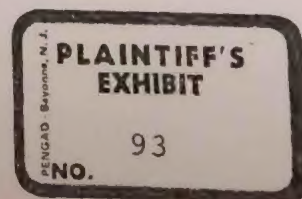
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Tap action button to start the game, then twist knob on control panel to make your "paddle" dash vertically and smack the "ball" back to your opponent. Quick, easy hook-up . . . just attach antenna change-over switch to VHF antenna terminals, plug 15-foot cable from control panel into change-over switch and tune in channel 3 or 4. Works with any size black-and-white or color TV. Four "D" batteries included. High-impact control panel 10¹/₂ x 5¹/₄ x 4¹/₄ inches high. TV not included.
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AUTOMATICALLY**
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to challenge your skill

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BEEP

**SCORE SHOWS UP
ELECTRONICALLY**
Scores from 1 to 15 (flash
on screen after each point
and in color (if you
have a color TV set))

**YOU HEAR THE
SOUND OF ACTION**
Every time electronic "ball"
hits "paddle" or sideline,
you hear a beep

**RELIABLE
SOLID-STATE CONTROLS**
Each player controls
"paddle". Console
uses little power—
operates on low-cost,
low-drain batteries